CLAIMS

What is claimed is:

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1.   A method of creating multi-color designs for a tufting machine, the method comprising:

    providing a pattern having multiple colors;

    receiving operational characteristics of a tufting machine;

    determining whether said pattern is feasible within said operational

10   characteristics.

2.   A system for generating a color chart for a colored carpet pattern which reports the existing colors in a pixel range associated with each needle of a tufting machine to determine the placement of yarn on creels of said tufting machine, the system comprising:

15   a pattern storage unit adapted to store at least one pattern;

    a machine data storage unit adapted to store machine data corresponding to at least one tufting machine, wherein said at least one tufting machine includes at least one cone of yarn color; and

    a control unit adapted to analyze said at least one pattern, determine if said at least

20   one pattern is feasible within said machine data, and generate a report indicating the placement of said at least one cone of yarn color onto said at least one tufting machine.

3.   A method for generating a color chart for a colored carpet pattern which reports the existing colors in a pixel range associated with each needle of a tufting machine to determine the

25   placement of yarn on creels of said tufting machine, the method comprising:

    providing a pattern;

    receiving machine parameters of a particular tufting machine;

    analyzing each pixel of said pattern to determine at least one color associated with said pattern;

30   determining whether said at least one color corresponds to at least one needle of said tufting machine;

determining the number of cones necessary for each said at least one color; and

generating a report including a palette of colors of said pattern, a chart indicating which said at least one color corresponds with said at least one needle, and a summary of the number of cones needed for each said at least one color.

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